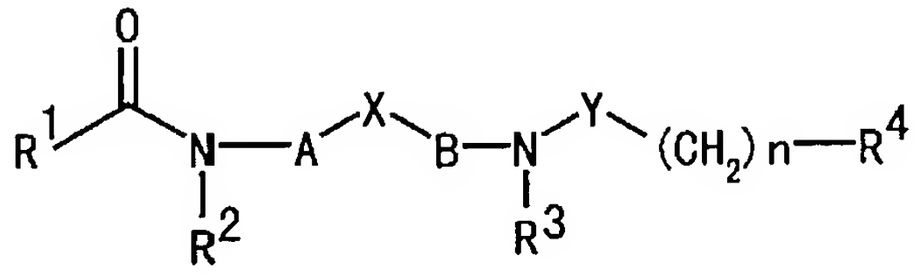
AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A heterocyclic compound represented by ~~the following~~ ~~general~~ formula (I) or a pharmaceutically acceptable salt thereof:



(I)

wherein R^1 is a cycloalkyl group, a cycloalkyl group having a substituent(s), wherein when said cycloalkyl group is a cyclopropyl group said cyclopropyl group has a substituent(s), a cycloalkenyl group or a cycloalkenyl group having a substituent(s); each R^2 and R^3 is a hydrogen atom or an alkyl group; R^4 is an alkyl group, an alkyl group having a substituent(s), an alkenyl group, an alkenyl group having a substituent(s), a cycloalkyl group, a cycloalkyl group having a substituent(s), a cycloalkenyl group, a cycloalkenyl group having a substituent(s), an aryl group, an aryl group having a substituent(s), an aromatic heterocyclic group having at least one hetero-atom within a ring or an aromatic heterocyclic group having a substituent(s) and at least one hetero-atom within a ring; A is a heterocyclic ring or a heterocyclic ring having a substituent(s); B is an aromatic ring, an aromatic ring having a substituent(s), a heterocyclic ring or a heterocyclic ring having a substituent(s); n is an integer selected from 0 to 6; -Y- is an interatomic bond, -CO-, -CO-O-, -CO-NR^5-, -CS-NR^6-, -SO-, -SO_2-, wherein each of R^5 and R^6 respectively is a hydrogen atom or an alkyl group; wherein -X- is an interatomic bond, -O-, -O-CHR^7-, -CHR^8-O-, -O-CO-, -CO-O-, -O-CS-, -CS-O-, -S-, -SO-, -SO_2-, -S-CHR^9-, -CHR^{10}-S-, -S-CO-, -CO-S-, -S-CS-, -CS-S-, -SO_2-NR^{11}-, -NR^{12}-SO_2-, -NR^{13}-, -NR^{14}-CHR^{15}-, -CHR^{16}-NR^{17}-, -CO-, -C(=NOR^{18})-, -C(=CHR^{19})-,-CO-CHR^{20}-, -CHR^{21}-CO-, -CO-NR^{22}-, -NR^{23}-CO-, -$CR^{24}R^{25}$-, -CHR^{26}-CHR^{27}-, -CR^{28}=CR^{29}-, -O-CHR^{30}-

CHR^{31}-, wherein each of R^7, R^8, R^9, R^{10}, R^{15}, R^{16}, R^{20}, R^{21}, R^{24}, R^{28}, R^{29}, R^{30} and R^{31} respectively is either of a hydrogen atom or an alkyl group; each of R^{11}, R^{12}, R^{13}, R^{14}, R^{17}, R^{18}, R^{19}, R^{22} and R^{23} respectively is either of a hydrogen atom, an alkyl group or an acyl group; each of R^{26} and R^{27} respectively is either of a hydrogen atom, a hydroxy group or an alkyl group; and R^{25} is a hydrogen atom, a hydroxy group, an alkyl group, an alkyl group having a substituent(s), a mercapto group, an alkoxy group, an alkylthio group, an acyloxy group, an amino group, an alkylamino group, an amino group substituted with an amino protective group, a carboxyl group, an alkoxycarbonyl group, an aminocarbonyl group, or a cyano group.

2. – 3. (Cancelled)

4. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 1, wherein R^1 of ~~the general~~ formula (I) is either of a 2,2-dimethylcyclopropyl group, a 2,2-dichlorocyclopropyl group, a 2,2-difluorocyclopropyl group or a 2,2-dibromocyclopropyl group.

5. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 4, wherein, in ~~the general~~ formula (I), A is either of an aromatic heterocyclic ring or an aromatic heterocyclic ring having a substituent(s), and B is either of an aromatic ring, an aromatic ring having a substituent(s), an aromatic heterocyclic ring or an aromatic heterocyclic ring having a substituent(s).

6. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 5, wherein –Y- of ~~the general~~ formula (I) is an interatomic bond, –CO-, -$CONR^5$-, $CSNR^6$- or –SO_2-, wherein each of R^5 and R^6 respectively is a hydrogen atom or an alkyl group.

7. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable

salt thereof according to claim 1, wherein, in ~~the general~~ formula (I), –X- is an interatomic bond, –O-, -O-CHR^7-, -CHR^8-O-, -S-, -NR^{13}-, -$CR^{24}R^{25}$- or –O-CHR^{30}-CHR^{31}-, wherein each of R^7, R^8, R^{24}, R^{30} and R^{31} respectively is a hydrogen atom or an alkyl group; R^{13} is either of a hydrogen atom, an alkyl group or an acyl group; and R^{25} is a hydrogen atom, a hydroxy group, an alkyl group, an alkyl group having a substituent(s), a mercapto group, an alkoxy group, an alkylthio group, an acyloxy group, an amino group, an alkylamino group, an amino group substituted with an amino protective group, a carboxyl group, an alkoxycarbonyl group, an aminocarbonyl group, or a cyano group.

8. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 7, wherein, in ~~the general~~ formula (I), A is either of a pyridine, a pyridazine, a pyrimidine, a pyridine having a substituent(s), a pyridazine having a substituent(s) or a pyrimidine having a substituent(s); and B is a benzene ring or a benzene ring having a substituent(s).

9. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 8, wherein R^1 and R^4 of ~~the general~~ formula (I) may be the same or different from each other and each may be either of a 2,2-dimethylcyclopropyl group, a 2,2-dichlorocyclopropyl group, a 2,2-difluorocyclopropyl group or a 2,2-diburomocyclopropyl group; –Y- is –CO-; and n is 0.

10. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 8, wherein R^1 of ~~the general~~ formula (I) is either of a 2,2-dimethylcyclopropyl group, a 2,2-dichlorocyclopropyl group, a 2,2-difluorocyclopropyl group or a 2,2-dibromocyclopropyl group; R^4 is an aryl group or an aryl group having a substituent(s); –Y- is –CO-; and n is an integer selected from 1 to 3.

11. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable

salt thereof according to claim 8, wherein R^1 of ~~the general~~ formula (I) is either of a 2,2-dimethylcyclopropyl group, a 2,2-dichlorocyclopropyl group, a 2,2-difluorocyclopropyl group or a 2,2-dibromocyclopropyl group; R^4 is an aryl group or an aryl group having a substituent(s); -Y- is an interatomic bond; and n is an integer selected from 2 to 4.

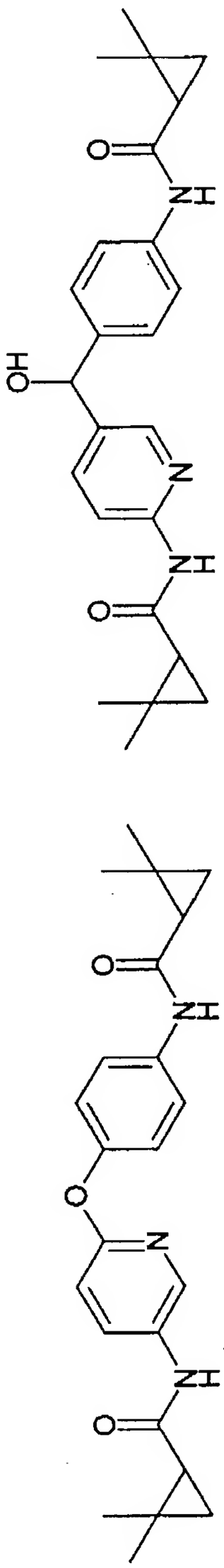
12. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to ~~any one of claims 3 to 11~~ claim 4, wherein when R^1 of ~~the general~~ formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

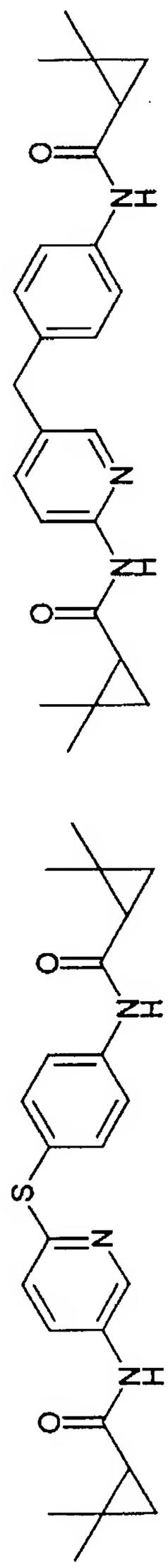
13. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to ~~any one of claims 3 to 11~~ claim 4, wherein when R^1 of ~~the general~~ formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

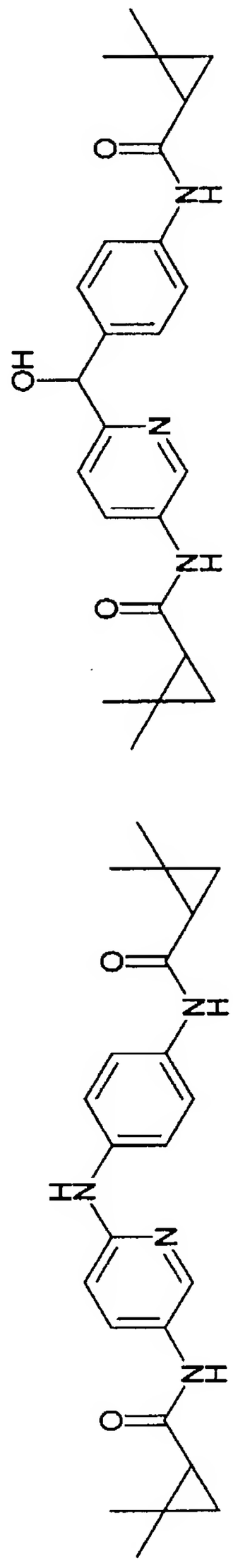
14. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 9, wherein when each of R^1 and R^4 of ~~the general~~ formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

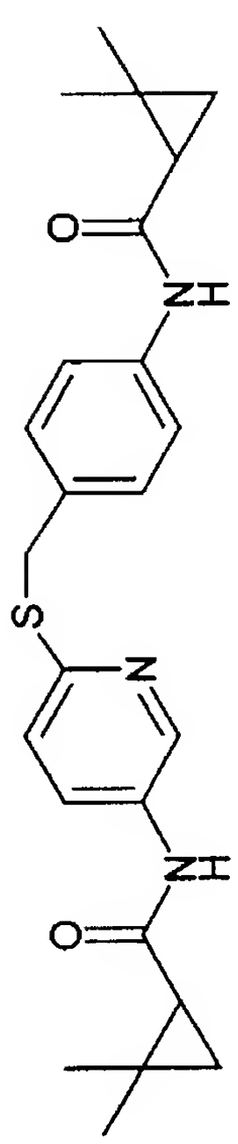
15. (Currently Amended) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 9, wherein when each of R^1 and R^4 of ~~the general~~ formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

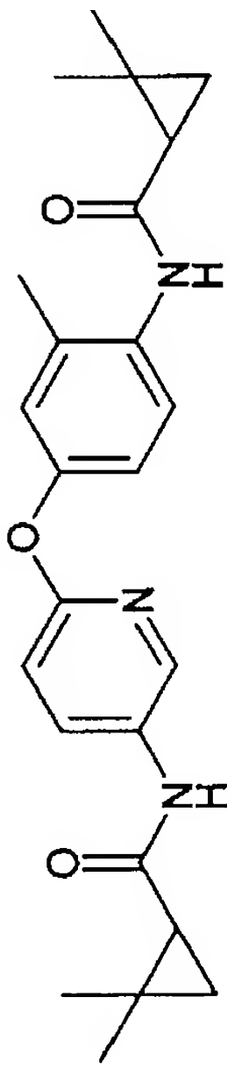
16. (Previously Presented) A heterocyclic compound or a pharmaceutically acceptable salt thereof represented by the following formulas:

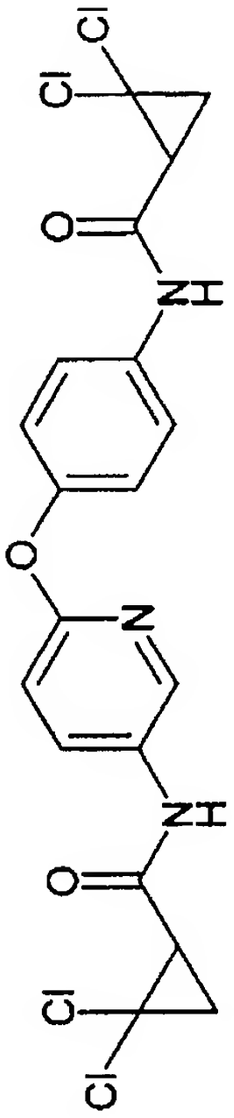


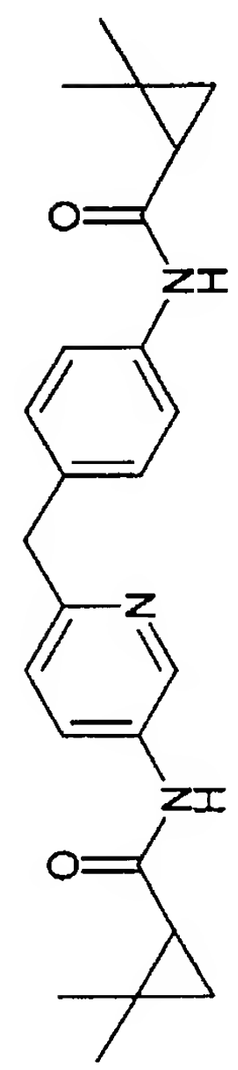


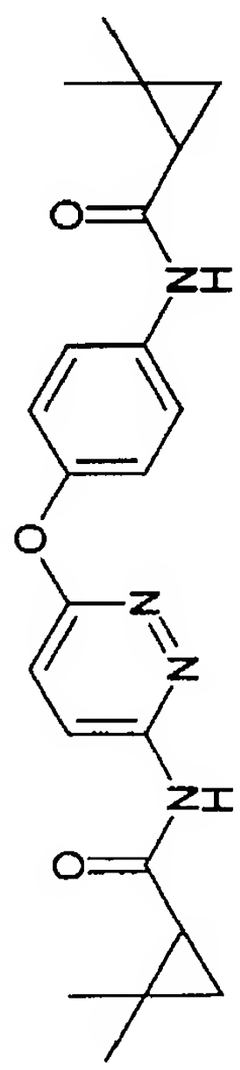


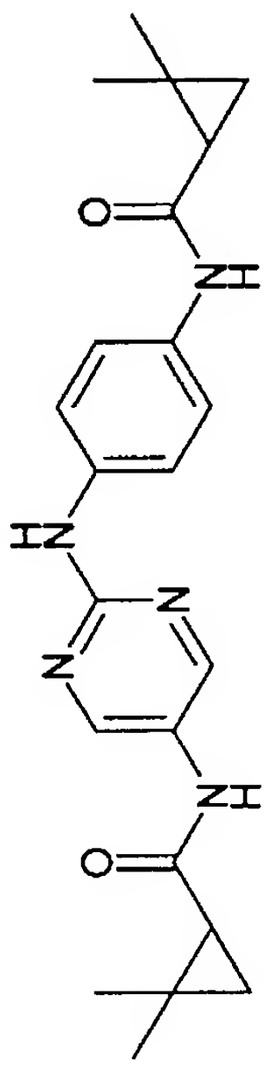


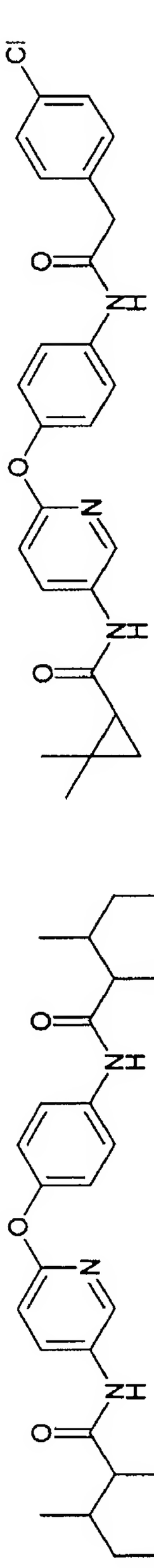
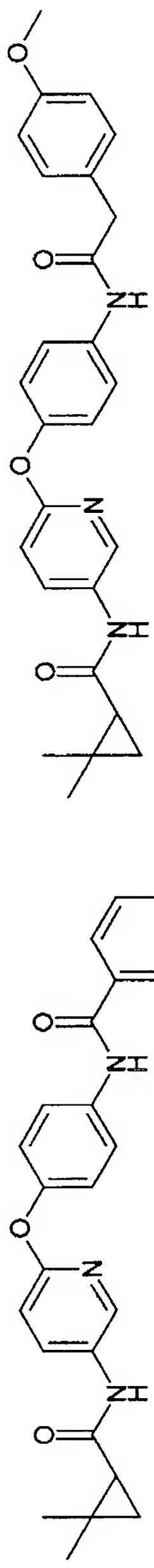
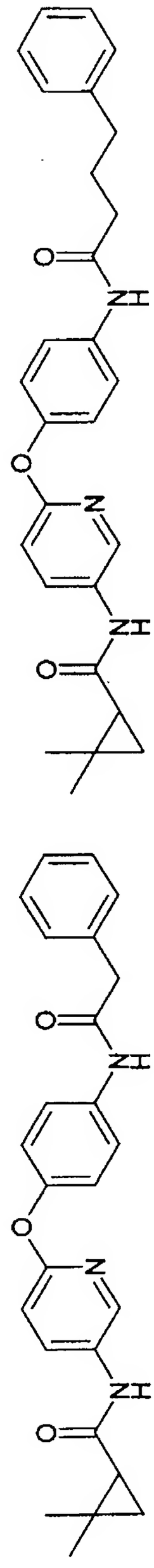


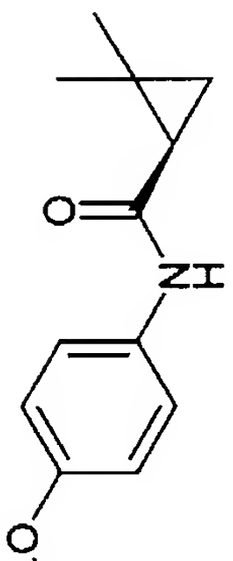
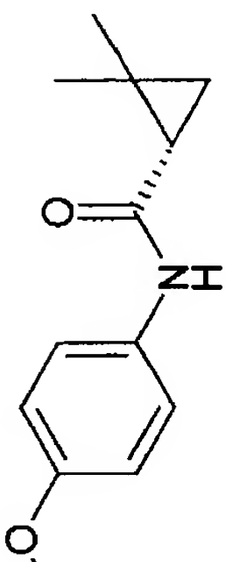
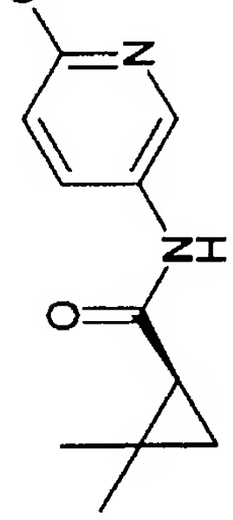
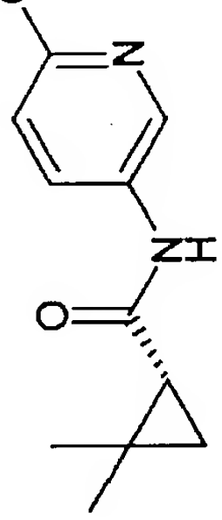
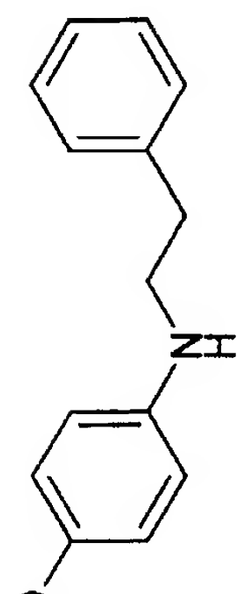
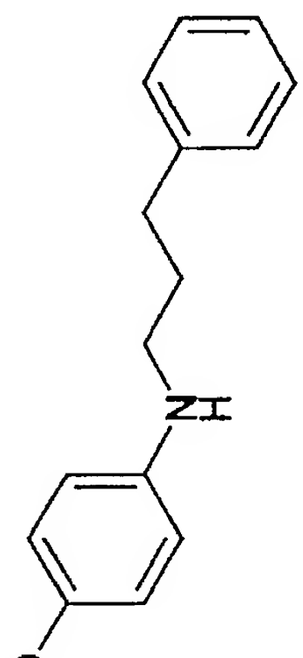
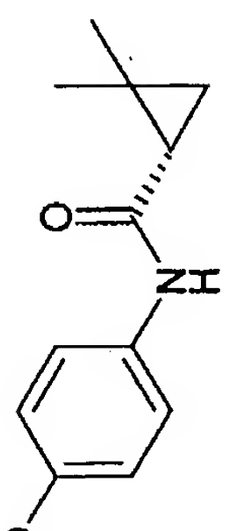
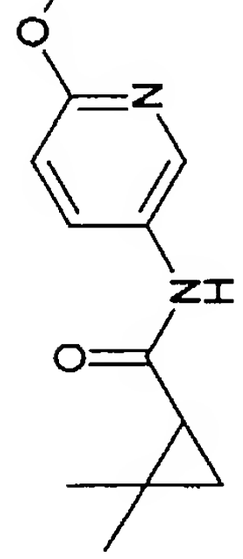
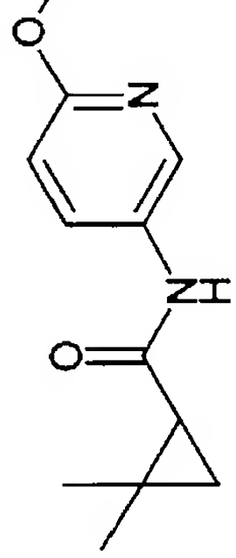
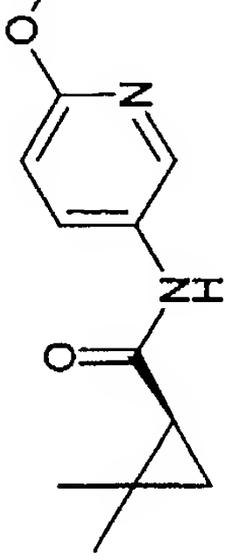








17. (Previously Presented) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 1, wherein B is a phenylene group; R^1 is a cycloalkyl group having a substituent(s) or a cycloalkenyl group having a substituent(s); R^2 is a hydrogen atom or an alkyl group; R^3 is a hydrogen atom or an alkyl group; R^4 is an alkyl group which may be substituted, a cycloalkyl group which may be substituted, a cycloalkenyl group which may be substituted, an aryl group which may be substituted or an aromatic heterocyclic ring group which may be substituted and also has one or more hetero atoms; -X- is –O-, -O-CHR^7-, -CHR^8-O-, -O-CO-, -CO-O-, -O-CS-, -CS-O-, -S-, -SO-, -SO_2-, -S-CHR^9-, -CHR^{10}-S-, -S-CO-, -CO-S-, -S-CS-, -CS-S-, -SO_2-NR^{11}-, -NR^{12}-SO_2-, -NR^{13}-, -NR^{14}-CHR^{15}-, -CHR^{16}-NR^{17}-, -CO-, -C(=NOR^{18})-, -C(=CHR^{19})-, -CO-CHR^{20}-, -CHR^{21}-CO-, -CO-NR^{22}-, -NR^{23}-CO-, -$CR^{24}R^{25}$-, -CHR^{26}-CHR^{27}- or -CR^{28}=CR^{29}, wherein each of R^7, R^8, R^9, R^{10}, R^{20}, R^{21}, R^{24}, R^{28} and R^{29} is either of a hydrogen atom or an alkyl group; each of R^{11}, R^{12}, R^{13}, R^{14}, R^{17}, R^{18}, R^{19}, R^{22} and R^{23} is either of a hydrogen atom, an alkyl group or an acyl group; each of R^{15} and R^{16} is a hydrogen atom or an alkyl group; each of R^{26} and R^{27} is either of a hydrogen atom, a hydroxy group or an alkyl group; and R^{25} is a hydrogen atom, a hydroxy group, an alkyl group which may be substituted, a mercapto group, an alkoxy group, an alkylthio group, an acyloxy group, an amino group which may be substituted with an alkyl group or an amino protective group, a carboxyl group, an alkoxycarbonyl group, an aminocarbonyl group, or a cyano group; wherein n is an integer selected from 0 to 6; Y is –C(O)-; and A is the aromatic heterocyclic ring including at least one or more nitrogen atom.

18. (Previously Presented) A pharmaceutical composition comprising as an active ingredient which is a heterocyclic compound or a pharmaceutically acceptable salt thereof according to claim 1 and a pharmaceutical acceptable carrier.

19. (Previously Presented) A method of AP-1 activation inhibition or NF-kappaB

activation inhibition comprising administering a pharmaceutical composition comprising as an active ingredient which is a heterocyclic compound or a pharmaceutically acceptable salt thereof according to claim 1.

20. (Previously Presented) A method of inflammatory cytokine production inhibition, production inhibition for matrix metalloprotease or inflammatory cell adhesion factor expression inhibition comprising administering a pharmaceutical composition comprising as an active ingredient which is a heterocyclic compound or a pharmaceutically acceptable salt thereof according to claim 1.

21. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 5, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

22. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 5, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

23. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 6, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

24. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 6, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

25. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 7, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

26. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 7, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

27. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 8, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

28. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 8, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

29. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 9, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

30. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 9, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

31. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 10, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

32. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 10, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

33. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 11, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

34. (New) The heterocyclic compound or pharmaceutically acceptable salt thereof according to claim 11, wherein when R^1 of formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.